DOCUMENT RESUME

ED 335 882 FL 019 335

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TITLE Agutaynen Glottal Stop.
PUB DATE 91
NOTE 14p.; In: Work Papers of the Summer Institute of Linguistics, University of North Dakota Session, Volume 35, p119-131, 1991; see FL 019 329.
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Contrastive Linguistics; Foreign Countries; *Language Patterns; Language Research; *Language Variation; Linguistic Theory; Morphophonemics; Phonemics; *Phonology; Uncommonly Taught Languages
IDENTIFIERS *Agutaynen; *Glottal Stops; Philippines

ABSTRACT

A study investigated the phonemic and morphophonemic patterning of the glottal stop in Agutaynen, a Meso-Philippine language, and some comparison with two northern Philippine languages. Agutaynen glottal stop has as its sole origin a neutralization of contrast rule, the operation of which can be noted in three different linguistic environments. Although it is not possible at this point to specify precisely all the factors influencing its application, the neutralization rule is apparently sensitive to social factors in this environment. It is hypothesized that the glottal stop in Agutaynen represents an innovation that has been spreading through the language for some time but which is currently being halted across a morpheme boundary by the influence of a more prestigious and increasingly used second language. The introduction of a glottal stop through neutralization of contrast is a little-documented phenomenon, but its presence in at least three languages (Agutaynen, Ga'dang, and Isnag) suggests that such a process may be even more widespread among Philippine languages that allow a preconsonantal glottal. Eighteen notes and an eight-item bibliography are included. (MSE)

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AGUTAYNEN GLOTTAL STOP[1]

J. Stephen Quakenbush

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1 Introduction

In his 1982 discussion of Austronesian laryngeals, Zorc called for more information on "the phonemic and morphophonemic status of [ʔ] and [h] in various Austronesian languages" (Zorc 1982:133). An analysis of glottal stop in Agutaynen[2] does indeed yield interesting information, not so much due to any immediate relevance to the reconstruction of Austronesian proto-forms, as was Zorc's goal in 1982, but rather because it presents a clearly visible case of a sound change in progress.

Agutaynen is unusual among Philippine languages in that its glottal stop only occurs word medially preceding another consonant.[3] In this particular environment, contrary to what might be expected, glottal stop cannot be construed to be a reflex of any of the Proto-Philippine laryngeals: **q*, **ʔ*, **h*, or **ø*. As Zorc (1982) claims for the Kalamian dialects in general, Agutaynen has a [k] reflex for PPH **q*, and zero reflexes for **ʔ*, **h* and **ø*.[4] Hence, Agutaynen glottal stop is not derived from any laryngeal proto-form, but rather from a phonological rule which neutralizes contrast among stops in preconsonantal position. The variable nature of this rule indicates that a sound change is in progress, and I hypothesize below that there are both linguistic and social forces influencing its spread through the language.

2 Phonemics of Agutaynen glottal stop

Agutaynen has 13 consonants, 4 vowels, and 2 semivowels, as detailed in Table 1.[5]

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p	t	k	ʔ	i	ɨ	u
b	d	g			a	
m	n	ŋ				
	l			y		w
	r					
	s					

Table 1. Phonemes of Agutaynen.

The existence of the glottal phoneme can be established by contrast with its absence. In simple roots it is difficult to find contrast in identical environments, although there are at least two minimal pairs, given in examples (1)-(2).

(1)	*buʔli*	'lie'	vs	*buli*	'bottom'
(2)	*baʔlu*	'new'	vs	*balu*	'widow(er)'

In addition to these two minimal pairs, there are numerous instances of contrast in analogous environments, as shown in examples (3)-(10).

(3)	*aʔpin*	'join'	*apun*	'afternoon'
(4)	*luʔtu*	'jump'	*lutuk*	'cook'
(5)	*maʔkal*	'snake'	*bakal*	'buy'
(6)	*laʔbaŋ*	'width'	*tabaŋ*	'help'
(7)	*tiʔma*	'question'	*imit*	'face'
(8)	*biʔna*	'stutter'	*lino*	'winnowing tray'
(9)	*uʔya*	'good'	*luya*	'garlic'
(10)	*biʔwa*	'intestines'	*diwata*	'spirit'

The fact that glottal stop occurs only preceding a consonant in (1)-(8) provides incidental evidence for the consonantal status of the semivowels in (9)-(10). As stated above, Agutaynen glottal stop does not occur intervocalically,[6] and it is never contrastive in word initial or word final position.

Other consonants which occur within a root as the first member of a consonant cluster include *b, d, g, m, n, ŋ, l, r,* and *s,* as illustrated in examples (11)-(19).

(11)	*abdit*	'pregnant'
(12)	*igmundu*	'proper name'[7]
(13)	*tigka*	'until'
(14)	*ambi*	'rat'
(15)	*anda*	'none'
(16)	*ankin*	'niece/nephew'
(17)	*sildi*	'hiccup'
(18)	*arbun*	'plumeria tree'[7]
(19)	*ismail*	'proper name'[7]

It will be noted that the consonant clusters in examples (11)-(19) all occur across a syllable boundary. The only clusters that occur in word initial position involve a liquid or nasal as the second consonant, in such borrowed forms as (20) and (21). No examples have been found of consonant clusters in word final position.

(20) *traidor* 'dishonest person'
(21) *platon* 'plate'

The voiceless stops *p*, *t*, and *k* do not occur before another consonant in Agutaynen. This suggests that Agutaynen's glottal stop may actually be the result of a neutralization of contrast among voiceless stops in preconsonantal position. By comparing Agutaynen forms with reconstructions, or with their Kalamian Tagbanwa[8] cognates as in examples (22)-(24), it becomes obvious that this is indeed the case, at least in part.

	Agutaynen	*Kalamian Tagbanwa*	*Gloss*
(22)	*mu?ya*	*mupya*	'good'
(23)	*bi?wa*	*bitwa*	'intestines'
(24)	*da?tal*	*daktal*	'floor'

A rule that accounts for most occurrences of glottal stop in Agutaynen roots, then, could be formulated as follows:

Rule 1a (obligatory): $C \rightarrow ? / ___ C$ (C: [-cont, -voi])

Since it is impossible to recover the "original" or "underlying" initial stop in consonant clusters such as those in examples (3)-(10) apart from comparative or historical analysis, it would seem reasonable to ignore its various sources and simply posit glottal stop as an Agutaynen phoneme of limited distribution. There are, however, many examples of glottal stop in Agutaynen where the "original" stop is easily recoverable. These occur when roots take certain verbal affixes, a process considered in Section 3.

3 Morphophonemics of Agutaynen glottal stop

While Agutaynen glottal stop occurs relatively infrequently in uninflected roots, in words of more than one morpheme it is both pervasive and "traceable". Several minimal pairs are apparent in morphologically complex forms

(such as the derived verb stem *pa?lit* < *pa+tilit* 'to substitute/change' versus the noun *palit* 'wind'), but it is when verbs combine with their various inflectional affixes that the rules resulting in glottal stop are most productive and obvious. In examples (25)-(30), the neutralization rule as formulated in Rule 1a above interacts with a vowel deletion rule to produce a glottal stop.

	Root		Affixation	V-Deletion	Neutralization	
(25)	*pila*	'low tide'	*ma+pila+an*	> *mapØlaØn*	> *ma?lan*	'(it) will be beached'
(26)	*pitik*	'crack'	*ma+pitik*	> *mapØtik*	> *ma?tik*	'(it) will crack'
(27)	*pitik*	'crack'	*pitik+in*	> *pitØkin*	> *pi?kin*	'crack (it)!'
(28)	*litim*	'hunger'	*litim+in*	> *litØmin*	> *li?min*	'be hungry'
(29)	*ikil*	'bring'	*ikil+an*	> *ikØlan*	> *i?lan*	'bring (it)!'
(30)	*tikid*	'tie'	*tikid+in*	> *tikØdin*	> *ti?din*	'tie (it)!'

In each of these examples the deletion of a high central vowel *i* results in a consonant cluster, which in turn is reduced to *?C*. The deleted *i* is always the vowel of the second syllable in a three or four syllable word.[9] Noncontracted verb forms are also possible. That is, an Agutaynen speaker may say *mapitik* and *pitikin*, instead of *ma?tik* and *pi?kin*, but such forms are rarely attested.

Depending on whether a root is prefixed or suffixed, different stops of the same root can be reduced to a glottal. This dual possibility for reduction is illustrated in (26)-(27) in the two derivations involving the root *pitik* 'to crack'. In (26) the p is reduced to glottal in *ma?tik* '(it) will crack', but in (27) it is the *t* which is reduced to glottal in *pi?kin* 'crack (it)!'

The vowel deletion rule is not entirely limited to the high central vowel. Example (31) illustrates that there are also instances of deletion of the high back vowel *u*. I have found no instances, however, of deletion of the high front vowel *i* or low central vowel *a*.

(31)	*lubut*	'used up'	*lubut+un*	> *lubØtun*	> *lu?tun*	'use (it) up!'
(32)	*bitaŋ*	'put'	*i+bitaŋ*	> *ibØtaŋ*	> *i?taŋ*	'put (it)!'
(33)	*dikal*	'shine'	*di+dikal*	> *didØkal*	> *di?kal*	'(it) shines'

Examples (25)-(33) demonstrate that when a verb form is contracted through vowel deletion, the neutralization rule applies regardless of the voicing of the initial consonant of the cluster.[10] Such examples require that Rule 1a be revised to include voiced consonants. The more general form of Rule 1b can no longer be obligatory, however, since

examples (11)-(13) above show voiced stops occurring before other consonants.

Rule 1b (optional):	C --> ? /___C [-cont]

Other morphophonemic rules may also interact with the vowel deletion and neutralization rules, as demonstrated in (34), where the sequence *-ʔr-* becomes *-ʔd-*, and in (35), where *-pn-* becomes *-ʔm-*.[11]

(34) *kiriŋ* 'stand' *ki+kiriŋ* > *kikəriŋ* > *kiʔdiŋ* 'stands'
(35) *punuk* 'full' *ma+punuk+an* > *mapənukan* > *maʔmukan* 'be filled'

4 Variability in the use of Agutaynen glottal stop

The neutralization rule as formalized in Rule 1b applies obligatorily to any root which has undergone contraction through vowel deletion. It does not apply, however, to all Agutaynen roots, as seen in (11)-(13). There are even a few roots for which there are alternate pronunciations, as in examples (36)-(38), where one alternative employs a glottal and the other a voiced stop.

(36) *maʔsik* *mabtik*[12] 'lively, quick'
(37) *maʔkal* *magkal* 'snake'
(38) *tiʔka* *tigka* 'until'

In (36)-(37) the glottal stop pronunciation is more common, but the forms with *b* and *g* are also possible. In (38) the *g* form seems to be the preferred pronunciation, but the glottal form is also possible. Examples (37) and (38) thus show opposing preferences for the use of the rule in analogous environments, indicating that its diffusion among roots is a process which is not yet complete.

Examples (36)-(38) are isolated examples of the irregular application of the neutralization rule within roots, each one involving a voiced consonant as the initial member of the consonant cluster. The variable application of the neutralization rule is seen more clearly in the case of *-gC-* sequences which occur across a morpheme boundary. This *-g+C-* sequence is an extremely common one due to the large inventory of consonant initial roots that can take the verbalizing prefix *mag-* (and its aspectual variants *pag-* and *nag-*). It is in this particular linguistic environment, illustrated in examples (39)-(47), that the application of the neutralization rule varies the most according to speaker.

(39)	*mag+pabakal*	'to sell'	*magpabakal*	*or*	*maʔpabakal*
(40)	*mag+turul*	'to give'	*magturul*		*maʔturul*
(41)	*mag+kalaw*	'to grab'	*magkalaw*		*maʔkalaw*
(42)	*mag+bantay*	'to guard'	*magbantay*		*maʔbantay*
(43)	*mag+duŋkul*	'to cook rice'	*magduŋkul*		*maʔduŋkul*
(44)	*mag+gulu*	'to disturb'	*maggulu*		*maʔgulu*
(45)	*mag+lutuk*	'to cook'	*maglutuk*		*maʔlutuk*
(46)	*mag+rutus*	'to chase'	*magrutus*		*maʔrutus*
(47)	*mag+sisiŋ*	'to wear a ring'	*magsisiŋ*		*maʔsisiŋ*

Without a great deal more quantitative data it is impossible to characterize precisely the factors which influence the application of the neutralization rule across a morpheme boundary. It is my observation that some speakers consistently use glottal, while others consistently use *g*. This variation may largely be due to geographic dialect, with speakers from different islands using glottal to varying degrees. It may be age graded, and it may also signal style shifting. My impression is that all three factors are involved, and that the use of the glottal is more common among middle-aged speakers and in informal styles. If it is indeed more common among middle-aged speakers, such a tendency could be explained in terms of an innovation, the spread of which is currently being blocked by the influence of an increasingly prestigious and increasingly used second language (Tagalog).[13]

In summary, the neutralization rule can be reformulated once again as Rule 1c, this time with four qualifying conditions.

Rule 1c (variable) C_i --> ? /___C_{ii}
[-cont]

(1) categorical when C_i is voiceless
(2) categorical when $-C_iVC_{ii}- > -C_iØC_{ii}-$
(3) nearly categorical within unaffixed roots when C_i is voiced
(4) dependent on social variables when C_i /___+C_{ii}

Rule 1c shows a variable phonological rule that is applied categorically in simple roots when the underlying initial consonant of the cluster is voiceless, as well as in affixed roots when a consonant cluster results from vowel deletion. The rule applies somewhat irregularly in simple roots involving initial voiced consonants in a cluster, and is clearly variable at a morpheme boundary (which always involves the voiced stop *g* as the initial consonant of the cluster).

The actual use (or disuse) of the neutralization rule across a morpheme boundary is open to conscious "correction" and social evaluation by Agutaynen speakers. I was once corrected by a college educated man in his early twenties, who pointed out that *mag-* was really the correct pronunciation, not *maʔ-*. There are at least three possible reasons why this speaker would have expressed such an opinion: (1) glottal stop represents an innovation which has not yet completely spread throughout the language; (2) this speaker is influenced by Tagalog, which is widely known and highly esteemed among his age-mates, and does not allow a *ʔC* sequence; or (3) the speaker prefers a more "careful" or "articulate" pronunciation of his own language. It is likely that all three of these factors operate to make the *ʔ+C* sequence sound especially peculiar and undesirable in the speech of a foreigner.[14]

It appears, then, that Agutaynen glottal stop is the result of a neutralization of contrast rule – an innovation which has applied in progressively more general linguistic environments. It originally applied to voiceless consonants within roots (where it now applies without exception) and has spread to include most voiced ones as well. From there it has proceeded to apply across a morpheme boundary, in cases where a prefix-final *g* precedes a consonant-initial root. In this last environment the innovation is apparently sensitive to social factors, and obviously operates on a conscious level for some speakers.[15]

5 Glottal stop in other Philippine languages

As noted above, glottal stop in Philippine languages typically occurs as a reflex of one of four Proto-Philippine laryngeals: PPH **q*, **ʔ*, **h* or **Ø*. Glottal stop also commonly occurs in Philippine languages in utterance-initial or utterance-final position, where in many cases it can be interpreted as a "phonetic or phonotactic feature of word closure or onset", as Zorc (1982:126) claims for Formosan languages. In Agutaynen, glottal stop clearly springs from a different source. It is the result of a neutralization of contrast among (mostly voiceless) stops occurring before other consonants. This source for glottal stop may be a relatively common one, at least for those Philippine languages which allow a preconsonantal glottal.

At least two Northern Philippine languages--Ga'dang of Mountain Province and Isnag of Apayao--do contain glottal stops that result from neutralization of contrast. Examples (48)-(49) compare forms from Ga'dang with their equivalents in two neighboring languages.[16]

(48) *duʔdut* (Ga'dang) *dutdut* (Kallahan) 'feather'
(49) *baʔnaŋ* (Ga'dang) *bakŋnaŋ* (Ilocano) 'rich'

This neutralization of contrast among voiceless stops before another consonant also occurs across a morpheme boundary in Ga'dang, as in examples (50)-(52).

(50) *ilap* 'knife' + *-da* 'their' > *ilaʔda*
(51) *palyot* 'flute' + *-mi* 'our excl.' > *palyoʔmi*
(52) *parayuk* 'skillet' + *-mi* 'our excl.' > *parayuʔmi*

Interestingly, when a neutralization rule produces a glottal stop before the Ga'dang suffix *-na*, the suffix-initial nasal assimilates to the point of articulation of the preceding underlying stop, as shown in (53)-(55).[17]

(53) *ilap* 'knife' + *-na* 'his/her' > *ilaʔma*
(54) *gatut* 'debt' + *-na* " > *gatuʔna*
(55) *akyak* 'sifter' + *-na* " > *akyaʔŋa*

The neutralization rule operative in the Isnag language is even more strikingly similar to that of Agutaynen, operating as it does in conjunction with a vowel deletion rule.[10] Examples (56)-(58) show that a single or geminate voiceless stop neutralizes to glottal when brought into a consonant cluster as the result of vowel deletion (in this case of the mid-central short vowel *a*). Examples (59)-(60) show that the rule does not apply to voiceless bilabial stops. Neither does it apply to voiced stops.

(56) *kattab* 'cut' *kattab+an* > *katt∅ban* > *kaʔban* 'cut (it)!'
(57) *kattab* 'cut' *na+kattab* > *nak∅ttab* > *naʔtab* '(it) was cut'
(58) *katal* 'itch' *na+katal+an* > *nak∅talan* > *nakaʔlan* '(it) was itchy'
(59) *ʔapat* 'invite' *ʔapat+an* > *ʔap∅tan* > *ʔaptan* 'invite (him/her)!'
(60) *pannu* 'full' *na+pannu* > *nap∅nnu* > *napnu* '(it) filled'

In Agutaynen, as well as in the two Northern Philippine languages, there are relatively few glottal stops in simple roots but a great many in connected speech. In Agutaynen and Isnag this is due to verbal affixation, while in Ga'dang it is due to the frequent use of pronouns.

In spite of the considerable geographic and genetic separation of Agutaynen from Ga'dang and Isnag, these three languages manifest very similar neutralization rules. The differences in the three languages with regard to glottal stop are that: (1) in Agutaynen, glottal stop occurs contrastively solely before another consonant, while in

Ga'dang and Isnag it occurs contrastively in other environments as well; (2) in Agutaynen both voiced and voiceless stops may undergo neutralization, while in Ga'dang only voiceless stops do, and in Isnag only voiceless alveolar and velar stops participate; (3) in Agutaynen and Isnag glottal stop is commonly the result of a vowel deletion rule which creates consonant clusters within a morpheme, while in Ga'dang there is no such rule. Rather, many Ga'dang consonant clusters are the result of a juxtaposition of roots and pronoun forms.

6 Summary

I have considered in this paper the phonemic and morphophonemic patterning of glottal stop in a Meso-Philippine language, Agutaynen, with some comparative notes from two Northern Philippine languages. Agutaynen glottal stop has as its sole origin a neutralization of contrast rule, the operation of which can be noted in three different linguistic environments: within a simple root, within an affixed root in combination with a vowel-deletion rule, and at a morpheme boundary between a root and an affix. Within unaffixed roots, the application of the rule is nearly categorical, with only a few exceptions involving a voiced stop as the initial member of the consonant cluster. Within affixed roots, the rule is obligatory in a consonant cluster resulting from vowel deletion. With consonant clusters across a morpheme boundary, the use of glottal stop shows considerable variation according to speaker, and possibly according to style as well. Although it is not possible at this point to specify precisely all the factors influencing its application, the neutralization rule is apparently sensitive to social factors in this environment. My hypothesis is that glottal stop in Agutaynen represents an innovation which has been spreading through the language for some time, but which is currently being halted (across a morpheme boundary) by the influence of a more prestigious and increasingly used second language.

Philippine languages very generally contain glottal stop in their phonemic inventories, either as a reflex of one of the Proto-Philippine laryngeals, or as a phonotactic feature of utterance onset or closure. The introduction of glottal stop through neutralization of contrast is a little-documented phenomenon, but its presence in at least three languages — Agutaynen, Ga'dang, and Isnag — suggests that such a process may be even more widespread among those Philippine languages which allow a preconsonantal glottal.

NOTES

1. This paper was presented at the Sixth International Conference on Austronesian Linguistics in Honolulu, Hawaii May 20-24, 1991. I express my gratitude to the Philippine Department of Education, Culture and Sports, in conjunction with whom the Summer Institute of Linguistics works in that country. Numerous colleagues have assisted me by commenting on earlier versions of this paper. I wish to thank Sherri Brainard, Dick Elkins, Paul Kroeger, Mike Maxwell, Malcolm Mintz, Tom Payne, Charles Peck, Cal Rensch, John Wolff and David Zorc. Special thanks also to Kippy Forfia, Gail Hendrickson, Randy Kamp, Rosemary Rodda, Dick Roe and Ed Ruch, who shared with me their expertise in Ga'dang, Agutaynen, Gaddang, Batak, Isnag and the Kalamian dialects, respectively.

2. Agutaynen is a language of northern Palawan province with approximately 10,000 speakers. According to Zorc (1977) it belongs to the Kalamian group, a member of the Meso-Philippine branch. McFarland (1980) classifies Agutaynen in a minimally distinct manner, as part of the Northern Palawan group. The current researcher has lived intermittently in the Agutaynen communities of Barangay Minarra, Roxas, Palawan and Agutaya Island since 1984.

3. Postconsonantal glottals are far more common in Philippine languages as represented in Reid 1971. Standard Bikol (Mintz, personal communication) and some dialects of Cebuano (Wolff, personal communication) contain preconsonantal glottal stops, as do Batak of Palawan, Ga'dang of Mountain Province, and Isnag of Apayao. Unlike Agutaynen, each of these languages also has an intervocalic glottal. Other languages which contain more than one occurrence of preconsonantal glottal in Reid's (1971) word lists are Itbayaten and Ivatan of Batanes, Central Cagayan Agta, Ilongot and Ifugao. With the exception of the Batanes languages, most of these glottals occur before alveolar consonants.

4. Zorc notes that his Kalamian data include a fair number of zero reflexes (instead of the expected [k]) for PPH **q*, as in **qalima:ŋu* > *Agy alimaŋo*. He attributes these exceptions to borrowings.

5. Quakenbush and Maxey 1986 (unpub. ms.) contains a fuller treatment of the phonemes of Agutaynen. As shown in

this paper, the phonemic status of glottal stop is debatable.

6. There are two exceptions to this generalization: the very common vocative forms *a?iŋ* 'little girl', and *a?uy* 'little boy'. Blust (1970) and Zorc (1978:94) have both shown that vocatives may pattern differently than other forms in a language. By comparing the Agutaynen forms with terms widely used in neighboring languages, it is not difficult to see that the former could have evolved as the result of a vowel deletion rule and neutralization of contrast among geminate consonants: *a+niniŋ* > *anØniŋ* > *a?iŋ*, and *a+duduy* > *adØduy* > *a?uy*.

7. Obviously, these borrowed terms are not as desirable for examples as indigenous terms, but I have no others. In the borrowing process, they have been adapted somewhat to fit the Agutaynen phonological system.

8. Referred to as Northern Tagbanwa in Zorc 1982. Ed Ruch supplied these forms.

9. The following sets of verbalizing affixes trigger vowel deletion: (1) *-om-*, initial CV- reduplication, *-imin-*; (2) *i-*, *-in-*; (3) *ma-*, *ga-*, *na-*; and (4) *-an*, *-in*, *-on*. The Actor Focus prefix sets (5) *mag-*, *pag-*, *nag-*, and (6) *maŋ-*, *paŋ-*, *naŋ-* do not trigger vowel deletion.

I have been unable to formulate a more precise phonological rule than the one offered here. Two colleagues (Malcolm Mintz and John Wolff, personal communication) have independently suggested that the rule may interact with stress, although stress generally plays a very minimal role in Agutaynen phonology.

10. I have no examples in Agutaynen of forms such as *maptik* or *lubtun*, although Ed Ruch (personal communication) suspects that such forms do occur in Kalamian dialects other than Kalamian Tagbanwa and Agutaynen.

11. Two additional forms that are not accounted for by the glottal stop rule as posited in this paper are: *maba-yan* 'to hear' < *ma-* + *basi* + *-an*, and *mata-wanan* 'to be known' < *ma-* + *tako +(an) +-an*.

12. There is also a spirantization rule at work here, which changes an alveolar stop to a fricative before a high front vowel. This rule is a variable one, used more consistently by older speakers. Its application is apparently blocked by the presence of the voiced bilabial stop in *mabtik*.

13. For a discussion of language attitudes and patterns of language use among Agutaynens, see Chapter 5 of Quakenbush 1989.

14. It is highly unlikely that an adult native speaker would have been corrected for such a pronunciation. I offer my intuitions for what they are worth, realizing that this entire paragraph is speculative in nature.

15. In Labov's (1972) terms, this would mean that Agutaynen glottal stop has progressed from being a simple linguistic "indicator", to a "marker", and may be on its way to becoming a "stereotype".

16. All Ga'dang forms are from Kathleen Forfia (personal communication). According to Forfia and to Randy Kamp (personal communication), the neutralization of contrast shown here does not occur in the lowland dialect of Gaddang, spoken around Bagabag, Solano and Bayombong.

17. A similar process of nasal assimilation occurs in the Agutaynen example (35) *ma?mukan* 'get swamped' < *ma- punuk -an.*

18. All Isnag forms are from Dick Roe (personal communication).

REFERENCES

Blust, Robert A. 1970. Proto-Austronesian addenda. *Oceanic Linguistics* 9.2:104-162.

Labov, William. 1972. On the mechanism of linguistic change. *Directions in sociolinguistics*, ed. by Gumperz and Hymes, 512-538. New York: Holt, Rinehart & Winston.

McFarland, Curtis D. 1980. *A linguistic atlas of the Philippines*. Institute for the Study of Languages and Cultures of Asia and Africa Monograph Series, 15. Tokyo University of Foreign Studies.

Quakenbush, J. Stephen. 1989. *Language use and proficiency in a multilingual setting: a sociolinguistic survey of Agutaynen speakers in Palawan, Philippines*. Special monograph 28. Manila: Linguistic Society of the Philippines.

Quakenbush, J. Stephen & James Maxey. 1986. Agutaynen phonemic statement. ms. Summer Institute of Linguistics – Philippines.

Zorc, R. David. 1977. *The Bisayan dialects of the Philippines: subgrouping and reconstruction*. Pacific Linguistics, C-44.

Zorc, R. David. 1978. Proto-Philippine word accent: innovation or Proto-Hesperonesian retention? *Second International Conference on Austronesian Linguistics: proceedings*, ed. by S.A. Wurm and Lois Carrington, 67-119. Pacific Linguistics, C-61.

Zorc, R. David. 1982. Where, oh where, have the laryngeals gone? *Papers from the Third International Conference on Austronesian Linguistics, vol. 2: Tracking the travellers*, ed. by Halim, Carrington & Wurm, 111-144. Pacific Linguistics, C-75.